EXECUTIVE ORDER U-R-001-0486

New Off-Road

Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)		
2014	ECPXL27.0HYA	27.0	Diesel	8000		
	FEATURES & EMISSION		TYPICAL EQUIPMENT APPLICATION			
Electroni	ic Direct Injection, Turbo er, Engine Control Modu Recirculation	le, Exhaust Gas	Generator			

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)				OPACITY (%)			
RATED POWER CLASS			НС	NOx	NMHC+NOx	СО	PM	ACCEL	LUG	PEAK
560 kW < GEN ≤ 900 kW	Interim Tier 4	STD	0.40	3.5	N/A	3.5	0.10	N/A	N/A	N/A
		FEL	N/A	3.3	N/A	N/A	N/A	N/A	N/A	N/A
		CERT	0.14	3.1		0.6	0.05			

BE IT FURTHER RESOLVED: That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 30dd day of October 2013.

Erik White, Chief

Mobile Source Operations Division

ATTACHMENT 10F1

Engine Model Summary Template

W-R-001-0486

Engine Family	1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak tore	9.Emission Control queDevice Per SAE J1930
ECPXL27.0HYA	Cert Test 1	C27	1127.8@1500	373	376	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	1 - 1128/1500	C27	1127.8@1500	373	376	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	2 - 1207/1800	C27	1207@1800	345	417	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	3 - 1207/1800	C27	1207@1800	345	417	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	4 - 1207/1800	C27	1207@1800	345	417	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	5 - 1006/1500	C27	1006@1500	340	344	NA	NA	NA	TC,ECM,CAC,DFI,EGR
ECPXL27.0HYA	6 - 1207/1800	C27	1207@1800	345	417	NA	NA	NA	TC,ECM,CAC,DFI,EGR